

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SHIGEKAZU ZEN

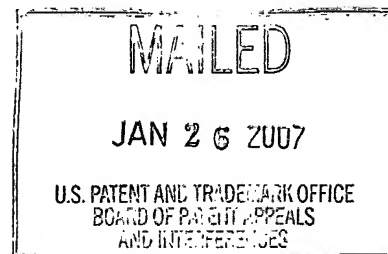
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Appeal No. 2007-0180  
Application No. 10/663,843

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ON BRIEF

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Before SCHEINER, GREEN, and LEBOVITZ, Administrative Patent Judges.  
LEBOVITZ, Administrative Patent Judge.

DECISION ON APPEAL

This appeal involves claims to a pesticidal emulsifiable concentrate. The Examiner has rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 134. We affirm.

DISCUSSION

Claims 1 and 4-10, which are all the pending claims in the instant application, are on appeal and stand rejected under 35 U.S.C. § 103. Br. 4. The patentability of the claims has been argued as a group. We select claim 1 as representative of the claims for the purpose of deciding this appeal. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Claim 1 reads as follows:

1. A pesticidal emulsifiable concentrate comprising (a) 1 to 60% by weight of a pyrethroid compound, (b) 2 to 15% by weight of at least one surfactant and (c) 15 to 90% by weight of at least one aromatic ester solvent represented by the formula:



wherein R represents non-aromatic group having 1 to 6 carbon atoms; Ar represents an aromatic group; and X represents a single bond or an alkylene group having 1 to 6 carbon atoms.

*Evidence relied upon*

The Examiner relies upon the following reference as evidence of unpatentability:

Schmitt	US Pat. 5,398,300	Feb. 14, 1995
Pallaske	DE 4142134A (Abstract only)	Jun. 24, 1993
Mukai	JP 53-075330 (Abstract only)	Jul. 4, 1978

*Obviousness under 35 U.S.C. § 103*

Claims 1 and 4-10 stand rejected under 35 U.S.C. § 103(a) as obvious over Schmitt in view of Pallaske and Mukai.

Schmitt teaches a composition for protecting sawn timber against wood-discoloring fungi comprising a combination of two fungicides which are phenol and iodopropargyl derivatives. Schmitt, col. 1, ll. 4-6; col. 1, l. 52 to col. 2, l. 6. In addition to the fungicides, the composition can contain emulsifiers, solvent, and insecticides. Col. 2, ll. 61-66; col. 3, ll. 27-28; col. 4, l. 22; col. 7, l. 24-43. *See* Answer 3 to 4.

Schmitt states that emulsifiers can be mixtures of nonionic and ionic emulsifiers which are present in 5-25% by weight. Col. 3, ll. 23-24; col. 8, l. 44-

45, 60-61. Answer 4: 9-10. These values overlap with the amounts recited in claim 1 of “(b) 2 to 15% by weight of at least one surfactant.”

Preferred solvents are described by Schmitt as dibutyl phthalate and butyl benzoate. Col. 3, ll. 9-12. Example 1 describes the use of butyl benzoate as a solvent (col. 5, l. 35), which is a solvent recited in instant claim 5 (“wherein the aromatic ester solvent (c) [of claim 1] is . . . butyl benzoate”). The solvents can be present in amounts of “more than 20% by weight,” which are overlapping with claim 1 (“(c) 15 to 90% by weight of at least one aromatic ester solvent”).

Schmitt’s composition can also contain an insecticide, preferably a phosphoric ester, carbamates, pyrethroid, or nitroimine. Col. 4, ll. 22-48; col. 8, ll. 25, 30 (listing the pyrethroids cypermethrin and permethrin). Answer 4: 2-3. The insecticide can be present in 0.001 to 10% by weight. Col. 4, ll. 52-53. Answer 4: 3-4. The amounts of insecticide in Schmitt’s composition overlap with the amounts which are recited in claim 1 (“(a) 1 to 60% by weight of a pyrethroid compound”).

The Examiner states that the difference between the claimed invention and Schmitt is that Schmitt does not “explicitly exemplify a combination of a pyrethroid, surfactant, and an aromatic solvent such as butyl benzoate” as required by claim 1. Answer 4: 16-18. However, the Examiner asserts that butyl benzoate [an “aromatic ester solvent”] is described (col. 3, l. 12) as preferred. Answer 4. The Examiner states that use of a pyrethroid in Schmitt’s composition would have been obvious because Schmitt explicitly suggests the addition of other fungicides or insecticides “for the purpose of increasing the spectrum of action or to achieve specific effects” and lists pyrethroids in its claimed composition (col. 8, ll. 8-30). Answer 4-5; *See also* Schmitt, col. 3, ll. 27-32.

The Examiner asserts that Pallaske and Mukai “provide additional motivation” to have utilized the pyrethroids “cypermethrin or permethrin by disclosing their known use in wood protection against wood damaging insects. One having ordinary skill in the art would therefore have been amply motivated to further protect Schmitt’s sawn timber against insect damage by including a pyrethroid insecticide such as cypermethrin or permethrin.” Answer 5 and 6: 13 to 7: 4. Summarizing Schmitt’s disclosure, the Examiner concludes that it “clearly disclose[s] such a formulation type [as claimed] in that the corresponding ingredients are all disclosed in claim-recited concentration amounts wherein concentrated emulsions are disclosed (column 2, lines 41-44).” *Id.*

Appellants assert that the error in the rejection of the claims is that the Examiner failed to establish a prima facie case of obviousness. Br. 9, “The Error in the Rejection.” They argue that “Schmitt describes that many additive compounds including pyrethroids, may be added to the composition; however, it does not exemplify a formulation comprising additive compounds, let alone a pesticidal emulsifiable concentrate comprising pyrethroids.” Br. 11.

There is no requirement under 35 U.S.C. § 103 that a prior art reference “exemplify” the claimed subject matter. Obviousness under 35 U.S.C. § 103 asks “not merely what the references expressly teach but what they would have suggested to one of ordinary skill in the art at the time the invention was made.” *In re Lamberti*, 545 F.2d at 750, 192 USPQ at 280.” *Merck & Co., Inc. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807-8, 10 USP2d 1843, 1846 (Fed. Cir. 1989). “All the disclosures in a reference must be evaluated . . . a reference is not limited to the disclosure of specific working examples.” *In re Mills*, 470 F.2d 649, 651, 176 USPQ 196, 198 (CCPA 1972).

Here, the Examiner has rejected the claims as obvious in view of Schmitt. It is not necessary that the prior art reference describe a specific example of the claimed subject matter, only that it would have fairly suggested it to the skilled person. We find that the Examiner has set forth a sound rationale for his conclusion that the claimed subject matter is prima facie obvious in view of Schmitt and the secondary references. *See* Answer 4: 16 to 6: 20. The Examiner has pointed to disclosure in Schmitt of the same ingredients recited in claim 1, in overlapping amounts,<sup>1</sup> and has explained why the skilled worker would have been motivated to choose them. In addition, the Examiner has explained that the choice of a pyrethroid as required in claim 1 would have been obvious to the person of ordinary skill in the art for its known wood-protecting activity. Answer 5 and 6: 13 to 7: 4. Appellants have not identified any defect in this reasoning.

“When the PTO shows prima facie obviousness, the burden then shifts to the applicant to rebut it. *In re Dillon*, 919 F.2d 688, 692 [16 USPQ2d 1897] (Fed. Cir. 1990) (en banc). Rebuttal may take the form of ‘a comparison of test data showing that the claimed compositions possess unexpectedly improved properties . . . that the prior art does not have, that the prior art is so deficient that there is no motivation to make what might otherwise appear to be obvious changes, or any other argument . . . that is pertinent.’ *Id.* at 692-93 (citations omitted).” *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1954 (Fed. Cir. 2005). Appellants assert that “any prima facie case of obviousness has been overcome by unexpected

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<sup>1</sup> When there is a range disclosed in the prior art, and the claimed invention overlaps or falls within that range, there is a presumption of obviousness. *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003); *Iron Grip Barbell Co. v. USA Sports*, 392 F.3d 1317, 1322, 73 USPQ2d 1225, 1228 (Fed. Cir. 2004).

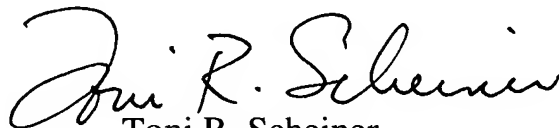
superiority of the present invention.” Br. 9. This evidence is presented in “Test Example 2” of the specification. Answer 7. We concur with the Examiner that that the data in Test Example 2 is not probative of “unexpected superiority” for at least the reasons set forth by the Examiner, i.e., the test formulation described in the example is not within the scope of the claimed subject matter. Answer 7-8.

For the foregoing reasons, the rejection of claim 1 is affirmed. Because Appellants have not provided separate reasons for patentability, claims 4-10 fall with claim 1.

#### TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

#### AFFIRMED



Toni R. Scheiner  
Administrative Patent Judge



Lora M. Green  
Administrative Patent Judge



Richard M. Lebovitz  
Administrative Patent Judge

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